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Regional Greenhouse Gas Initiative (RGGI) Annual Report

Maine Department of Environmental Protection

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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

March 14, 2014

Senator John J. Cleveland, Senate Chair
Representative Barry J. Hobbins, House Chair
Members of the Joint Standing Committee on Energy, Utilities and Technology
c/o Legislative Information
100 State House Station
Augusta, ME 04333-0100

RE: Regional Greenhouse Gas Initiative (RGGI) Annual Report

Dear Senator Cleveland, Representative Hobbins, and members of the Joint Standing Committee on Energy, Utilities and Technology:

Title 38 Maine Revised Statutes Annotated (MRSA) §580-B, sub-§10, established by Public Law, Chapter 317 of the 123rd Legislature and amended by Public Laws, Chapter 372 of the 124th Legislature and Chapter 369 of the 126th Legislature, directs the Department of Environmental Protection (Department), the Public Utilities Commission (Commission), and the trustees of the Efficiency Maine Trust (the "Trust" or "Efficiency Maine") to submit a joint report to the joint standing committee of the Legislature having jurisdiction over utilities and energy matters by March 15th annually, regarding items related to implementation of the Regional Greenhouse Gas Initiative (RGGI). This letter serves as the Commission's and Department's portion of the annual report. The Efficiency Maine portion of the report will be submitted by that entity at a later date. This report will address several elements of the legislative directive, as well as provide an update on the appropriateness of the number of allowances reserved in accordance with the voluntary renewable energy set-aside provisions, and also provide a progress report on the development of a fuel switching offset category as required in Public Law, Chapter 369 of the 126th Legislature.

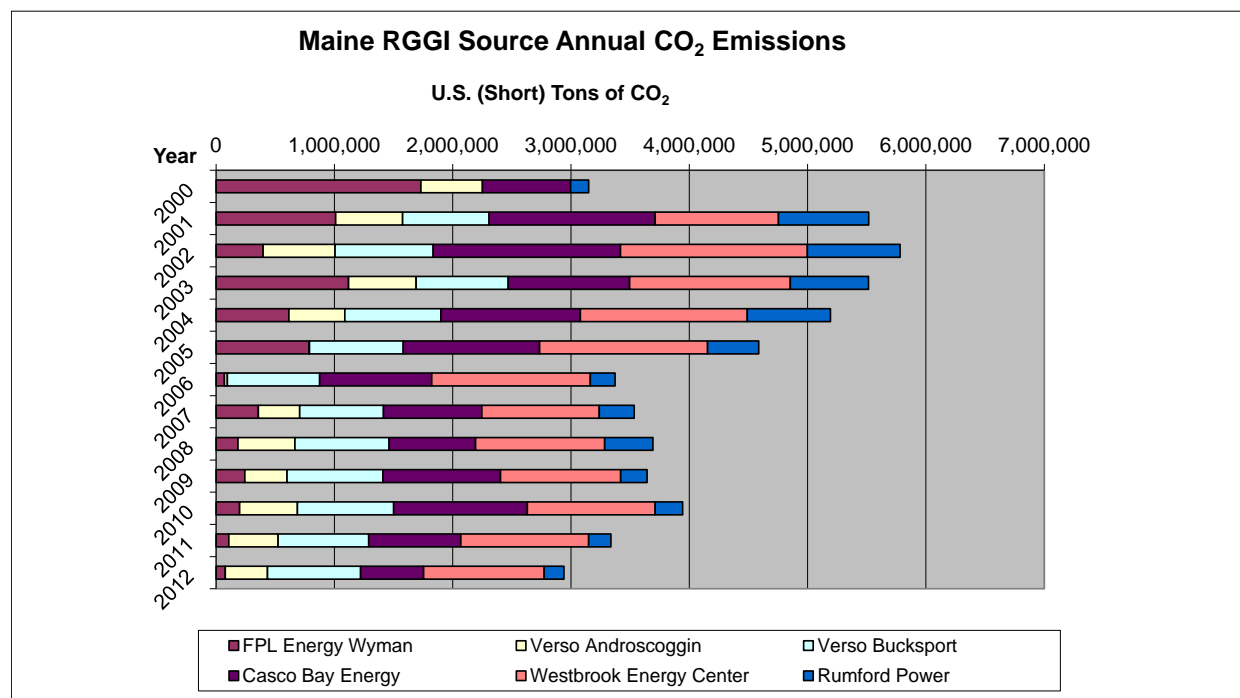
A. The reductions of greenhouse gas emissions from carbon dioxide budget units, conservation programs funded by the Regional Greenhouse Gas Trust Fund pursuant to Title 35-A, section 10109, and carbon dioxide emissions offset projects.

Reductions of greenhouse gas emissions from carbon dioxide (CO₂) budget units. As a group, CO₂ budget units (RGGI units) located in Maine and throughout the RGGI region have experienced significant reductions in CO₂ emissions from the baseline period (2000 to 2005) both leading up to and since the program began with the first auctions in 2008 (see Tables 1 and 2 below). Within the RGGI region, CO₂ emissions from RGGI units have decreased more than 40% from baseline emissions.

The RGGI program was originally designed to stabilize carbon dioxide (CO₂) emissions from the RGGI units in the region from 2009 through 2014 until the annual cap was to begin a gradual reduction of 2.5% per year between 2015 and 2018 to achieve a 10% reduction in emissions from baseline emissions. The State of Maine, along with the other RGGI participating states, made recent program changes to adjust the annual cap downward in 2014 and beyond to account for the lower than expected emissions at this point in the program. In 2014 the annual cap for the region was reduced from 165 to 91 million allowances, representing a 45% reduction in the cap. Maine's share of the new 2014 annual cap is 3.6%, or approximately 3.3 million allowances. The 91 million allowance annual cap will be adjusted further to address a surplus of allowances residing in the market. The adjusted cap then will gradually be reduced at the originally planned rate of 2.5% per year between 2015 and 2020.

Table 1 contains CO₂ emissions data from Maine's RGGI units from 2000 thru 2013.

Table 1



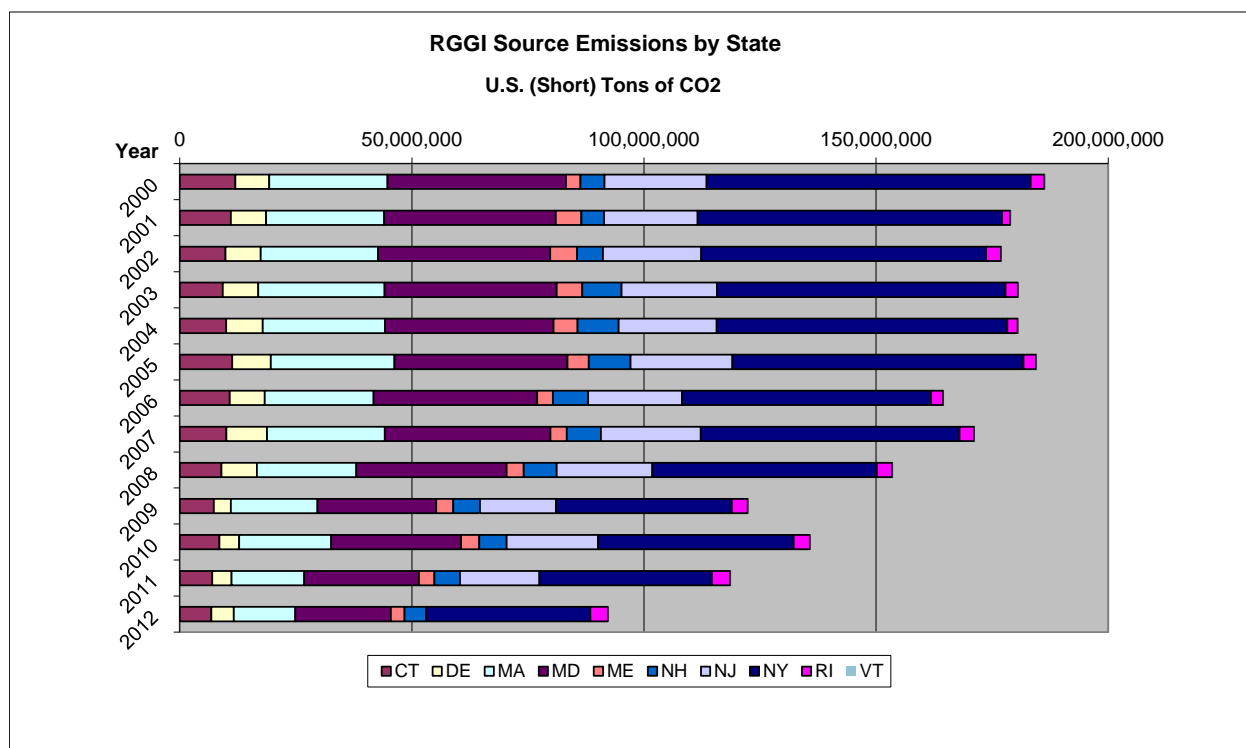
Year	Maine RGGI Source Annual CO2 Emissions (U.S. Tons)						Annual Totals
	FPL Energy Wyman	Verso Androscoggin	Verso Bucksport	Casco Bay Energy	Westbrook Energy Center	Rumford Power	
2000	1,731,846	519,770	0	744,689	0	153,306	3,149,611
2001	1,010,729	565,951	731,450	1,402,914	1,042,637	762,634	5,516,315
2002	397,062	608,960	829,490	1,582,011	1,580,945	782,900	5,781,368
2003	1,119,510	571,181	778,527	1,025,612	1,358,157	661,740	5,514,727

2004	616,030	472,481	810,749	1,178,901	1,412,282	701,496	5,191,939
2005	788,209	1,019	792,796	1,153,173	1,419,619	432,298	4,587,114
2006	70,853	24,826	780,609	946,041	1,341,636	207,857	3,371,822
2007	357,638	349,532	708,412	831,251	991,719	294,645	3,533,197
2008	185,915	481,163	796,139	730,736	1,090,087	407,238	3,691,278
2009	242,371	357,730	809,077	995,235	1,015,132	223,948	3,643,493
2010	198,691	489,273	813,064	1,130,402	1,079,445	232,583	3,943,458
2011	107,642	416,387	766,548	778,158	1,081,176	187,549	3,337,460
2012	77,825	357,371	787,071	532,676	1,018,917	166,212	2,940,072
2013	211,640	352,862	793,406	161,783	1,011,081	81,648	2,612,423

Note: Emissions from the former Mason Station in Wiscasset are not included in this table because it has not operated since 2003 and is not a RGGI source.

Table 2 contains CO₂ emissions data from all RGGI units, by state, from 2000 thru 2013.

Table 2



RGGI Source Annual CO₂ Emissions by State (U.S. Tons)											
Year	CT	DE	MA	MD	ME	NH	NJ	NY	RI	VT	ANNUAL TOTALS
2000	11,977,434	7,308,248	25,452,680	38,446,856	3,156,292*	5,178,731	21,954,959	69,809,356	2,959,594	24,914	186,269,063
2001	11,005,310	7,612,366	25,400,430	36,980,555	5,517,285*	4,862,445	20,177,621	65,553,672	1,782,110	22,015	178,913,809
2002	9,842,414	7,616,896	25,278,273	37,084,544	5,784,563*	5,556,992	21,145,667	61,367,406	3,254,015	5,171	176,935,941

2003	9,273,759	7,628,367	27,218,204	37,064,738	5,515,325*	8,478,382	20,543,331	62,129,292	2,668,990	12,094	180,532,482
2004	9,989,119	7,884,001	26,369,630	36,281,466	5,191,939	8,812,538	21,133,145	62,612,353	2,219,100	14,779	180,508,070
2005	11,323,844	8,300,628	26,640,945	37,263,686	4,587,114	8,972,027	21,937,521	62,718,683	2,692,228	7,781	184,444,457
2006	10,761,759	7,561,295	23,449,199	35,233,070	3,371,822	7,568,884	20,224,255	53,638,129	2,625,422	6,337	164,440,172
2007	10,052,782	8,744,154	25,366,733	35,700,194	3,533,197	7,314,954	21,515,622	55,717,151	3,161,200	6,112	171,112,099
2008	8,988,858	7,615,966	21,438,041	32,383,517	3,691,278	7,095,147	20,601,805	48,348,177	3,292,517	2,559	153,457,865
2009	7,322,364	3,708,331	18,661,076	25,572,943	3,643,493	5,769,881	16,359,443	37,861,408	3,416,783	1,965	122,317,687
2010	8,527,102	4,299,269	19,804,384	27,958,958	3,943,457	5,899,447	19,681,308	42,113,171	3,504,392	3,756	135,735,244
2011	7,018,498	4,150,396	15,634,872	24,699,638	3,337,460	5,525,369	17,117,779	37,137,382	3,946,582	6,537	118,574,513
2012	6,819,155	4,839,522	13,217,640	20,596,979	2,940,072	4,642,898	**	35,417,901	3,735,785	2,319	92,212,271
2013	7,224,360	4,285,050	13,676,425	18,683,424	2,612,423	3,653,194	**	33,564,388	2,771,104	2,760	86,473,133

** Maine's emissions for the years 2000 to 2003 are slightly higher than in Table 1 because emissions from the former Mason Station in Wiscasset are included in this table as part of Maine's baseline emissions under RGGI.*

*** New Jersey's emissions are not included in this table beyond 2011 since they ended their participation in RGGI at the end of 2011.*

Reductions of greenhouse gas emissions from conservation programs funded by the Regional Greenhouse Gas Initiative Trust Fund will be provided in the Trust's portion of this report at a later date.

Reductions of greenhouse gas emissions from offset projects.

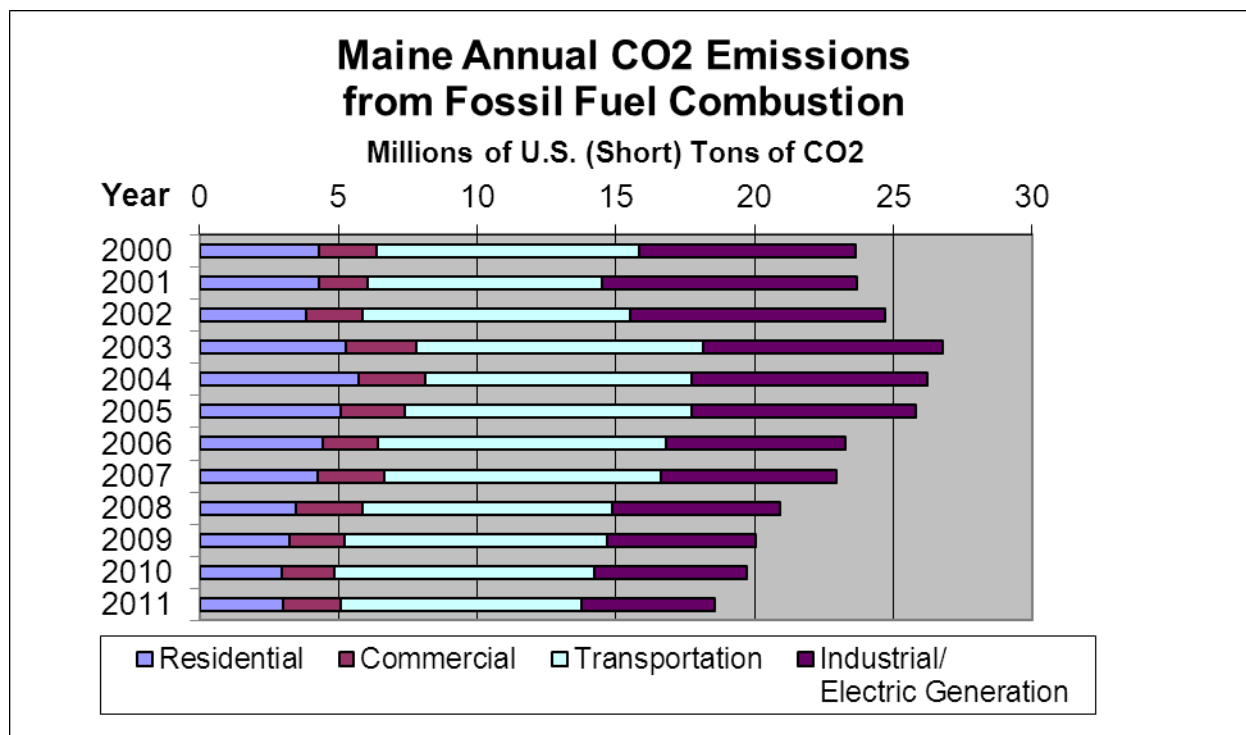
The offset project certification and application process was implemented in June of 2009. Independent third-party verifier status has been approved for private entities in three RGGI states. No third-party verifier has sought approval in Maine to date. Maine has received no applications for RGGI offset projects located within the state nor have there been any projects that have completed the application process in any other RGGI participating state.¹ The demand for offset projects and their associated allowances may increase as a result of the recent reduction to the annual cap within the RGGI program.

B. The improvements in overall carbon dioxide emissions and energy efficiency from sources that emit greenhouse gases including electrical generation and fossil fuel fired units.

Improvements in overall CO₂ emissions from sources within Maine that emit greenhouse gases are indicated in Table 3 below.

¹ MaineHousing's initiative to verify and sell carbon offsets is operating through national voluntary carbon markets and is not related to the RGGI offset program.

Table 3



Maine Annual CO ₂ Emissions from Fossil Fuel Combustion (In Millions of U.S. Tons)					
Year	Residential	Commercial	Transportation	Industrial/Electric Generation	Total
2000	4.30	2.08	9.46	7.81	23.65
2001	4.28	1.75	8.45	9.22	23.70
2002	3.85	2.00	9.65	9.18	24.68
2003	5.27	2.55	10.33	8.64	26.79
2004	5.73	2.39	9.60	8.48	26.20
2005	5.10	2.30	10.34	8.07	25.81
2006	4.44	1.98	10.37	6.50	23.29
2007	4.26	2.39	9.99	6.31	22.95
2008	3.45	2.40	9.04	6.02	20.91
2009	3.24	2.00	9.46	5.36	20.06
2010	2.94	1.89	9.39	5.49	19.71
2011	3.02	2.05	8.71	4.76	18.54

Note: Emissions data for calendar year 2012 are not yet available.

C. The maximization of savings through systemic energy improvements statewide

This information is to be provided in the Trust's portion of the report to be submitted at a later date.

D. Research and support of new carbon dioxide offset allowance categories for development in the State.

Historically, the auction price of allowances varied from \$1.86 to \$3.51 in the first three-year control period. More recently, the supply of CO₂ allowances in the RGGI program has been substantially greater than the demand, causing CO₂ allowance prices to hover slightly below \$2 per allowance during the last two years of the program. Due to the relatively low allowance prices, there has not been a demand for offset allowances (or the projects that create them). Following the recent downward adjustment to the annual cap after the program review in 2012, prices of allowances at more recent auctions have tended to increase with the 24th auction last week reaching a price of \$4.00. This may result in an increase in demand for offset allowances.

Section D-8 of Public Law, Chapter 369, the Omnibus Energy Bill enacted by the 126th Legislature, directs the Department and the Commission to work together to develop and promote for recognition by the other RGGI participating states, a modification of the existing end-use energy efficiency offset category to provide incentives for industrial and residential consumers to switch from oil and coal to fuels with lower greenhouse gas emissions. The law also directs the Department and the Commission to report progress on the development of this offset category as part of this annual report. To date, the Department and Commission have conferred and exchanged ideas on how best to move forward with this directive and have developed a plan to work on two parallel tracks. One track is to work with stakeholders and the public within Maine to obtain input on the proposed offset category modifications, assess demand for the offsets, and identify challenges and opportunities that the proposed changes could create. On the other track, Commissioners Aho and Littell, along with Department and Commission staff, have begun to confer with other RGGI participating states to further develop the fuel switching offset category concept, obtain input from the region, and attempt to build consensus for the idea. Both of these tracks will consider issues such as the potential market for fuel switching offsets, the state of fuel switching possibilities and technologies, fuel prices and other economic factors involved, the application of the "additionality" concept, and other technical issues such as metrics, measurement, and verification of the offsets.

E. Management and cost-effectiveness of the State's energy conservation and carbon reduction programs and efforts funded by the Energy and Carbon Savings Trust and Efficiency Maine Trust established pursuant to Title 35-A, section 10109.

This information is to be provided in the Trust's portion of the report to be submitted at a later date.

F. The extent to which funds from the Regional Greenhouse Gas Initiative Trust Fund established pursuant to Title 35-A, section 10109 serve customers from all classes of the State's transmission and distribution utilities.

This information is to be provided in the Trust's portion of the report to be submitted at a later date.

G. The revenues and expenditures of the Regional Greenhouse Gas Initiative Trust Fund, established pursuant to Title 35-A, section 10109.

Revenues from the sale of Maine's allowances under RGGI have totaled \$48.3 million as of the end of 2013 (\$5.6 million in 2008, \$9.6 million in 2009, \$8.3 million in 2010, \$5.2 million in 2011, \$5.5 million in 2012, and \$14.1 million in 2013). Expenditures of the Regional Greenhouse Gas Initiative Trust Fund are described in the Trust's portion of this report.

Voluntary Renewable Energy Set-aside

At this time, the number of allowances set-aside for the Voluntary Renewable Energy set-aside program are sufficient to adequately cover the number of claims, therefore, the Department recommends keeping the amount of the set-aside at the current level of 2% of Maine's annual CO₂ allowance budget.

Recommendations

The statutory reporting requirement also provides for the Department, the Commission, and Efficiency Maine to propose changes for the committee to consider that could be made to improve the program.

The Department, the Commission, and Efficiency Maine recommended changes be made to the program based on the results of the program review process that concluded in 2012. The 126th Legislature approved those recommended changes last year and the Department's regulations were amended in November of 2013 to incorporate the legislative changes. Another program review is scheduled to take place in 2016 which may result in additional recommendations for changes to the program, however, no other changes are recommended at this time.

The Department and the Commission are available to present this report, and answer any questions you may have.

Respectively submitted,



Patricia Aho, Commissioner
Maine Department of Environmental Protection



David Littell, Commissioner
Maine Public Utilities Commission